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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,584	10/24/2000	Ryuichi Iwamura	SONY-50P4042.US.P	3340

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EXAMINER

DADA, BEEMNET W

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/696,584

Applicant(s)

IWAMURA, RYUICHI

Examiner

Beemnet W. Dada

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18 and 26-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-18 and 26-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This office action is in reply to an amendment filed on April 04, 2005. Claims 11-14 and 16-18 have been amended, claims 1-10 and 19-25 have been cancelled and new claims 26-40 have been added. Claims 11-18 and 26-40 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 11, 26-28, 33-34, 38-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnston US Patent 6,373,946 B1.

4. As per claims 11, 26-28, 33-34 and 38-40, Johnston teaches a method/device for processing a digital signal comprising:

generating a local key (i.e., RAND) at a host processor [column 9, lines 60-62];

encrypting said local key at said host processor [column 10, lines 1-12];

transferring said encrypted local key across a communication link from said host processor to a first integrated circuit (i.e., Smart Card SIM 35 in 1st terminal) and to a second integrated circuit (i.e., Smart Card SIM 35 in 2nd terminal) [column 10, lines 9-35];

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encrypting said digital signal at said first integrated circuit using a decrypted version of said encrypted local key and transferring said encrypted digital signal to said second logical circuit [column 10, line 36 – column 11, line 17];

decrypting said encrypted digital signal at said second logical circuit using a decrypted version of said encrypted local key [column 10, lines 36 – column 11, line 17].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-13, 17-18, 29-32 and 35-37 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Johnston US Patent 6,373,946 B1 in view of Searle, US Patent 6, 683, 954.

7. As per claims 12, Johnston teaches the method/device as applied above. Johnston is silent on encrypting said local encryption key based upon a value accessed in a register in said first logical circuit. Searle discloses a method of encrypting an encryption key based upon a value accessed in a system component (see for example, col 4 ln 59-col 5 ln 7). One of ordinary skill in the art at the time of the applicant's invention would have realized a register to be the similar to the listed components of Searle. Both Johnston and Searle disclose a method of key security and control in processing digital data. It would have been obvious to one of ordinary skill in the art to combine the teachings of Searle within the system of Johnston because it

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would have improved key integrity and control by using values accessed to by some system component as a key for encryption (see for example, Searle col 6 ln 28-31).

8. As per claim 13, Johnston teaches the method/device as applied above. Johnston is silent on encrypting said local encryption key based upon a value accessed in a register in said first logical circuit. Searle discloses a method of encrypting an encryption key based upon a value accessed in a system component (see for example col 4 ln 59-col 5 ln 7). One of ordinary skill in the art at the time of the applicant's invention would have realized a register to be the similar to the listed memory components of Searle. Both Johnston and Searle disclose a method of key security and control in processing digital data. It would have been obvious to one of ordinary skill in the art to combine the teachings of Searle within the system of Johnston because it would have improved key integrity and control by using values accessed to by some system component as a key for encryption (see for example, Searle col 6 ln 28-31).

9. As per claim 17, 29-32, 35-37, Johnston teaches the method/device as applied above. Johnston is silent on polling a first hidden register in said first logical circuit. Searle discloses a means of polling memory (see for example, checksum is determined, col 8 ln 53-61), determining whether the value has been modified (see for example col 9 ln 6-17), and stopping said processing of said digital signal if said information was modified (see for example, col 9 ln 10-17). A hidden register is a form of memory used for storing data and is similar to the purposes of memory disclosed by Searle (see for example, ROM col 5 ln 1-7). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teachings of Searle within the system of Johnston al because it would have provided better

security towards tamper-proofing by detecting whether memory storing valuable information is tampered or modified.

10. As per claim 18, Johnston-Searle discloses the claimed limitations described above (see claim 17). Searle further discloses notifying the user if information was modified (see for example; col 7 ln 61-col 8 ln 2). Communications with a broadcast provider is well known in the art. One of ordinary skill in the art at the time of the applicant's invention would have recognized that notification is sent by any communications means. In broadcasting, it is important for the provider to know such modification to important information to take appropriate measures. It would have been obvious to one of ordinary skill in the art to send such notification to a broadcast provider instead of a user because it would have provided important information to the party controlling the distribution of control.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston US Patent 6,373,946 B1 in view of Blatter et al, US Patent 5,878,135.

12. As per claim 14, Johnston teaches the method/device as applied above. Johnston is silent on said first logical circuit to modify a header in said bitstream to indicate that said bitstream is encrypted. Blatter et al discloses a method of processing digital data (see for example; abstract) including a modifying a header in said bitstream to indicate that said bitstream is encrypted (see for example; encrypted indicator, col 3 ln 30-35). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teachings of Blatter et al within the system of Johnston because it would have provided the option of processing non-encrypted data and encrypted data in the same system. Encrypting

data is essential in security of important data, however, different security levels exists where certain data can be transferred in an unencrypted manner. A means for a system in determining such encrypted and unencrypted data is necessary to provide different security level approaches.

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston US Patent 6,373,946 B1 in view of Blatter et al, US Patent 5,878,135, as applied to claim 14 above, and further in view of Eyer et al, US Patent 5,485,577.

14. As per claim 15, Johnston-Blatter discloses the claimed limitations described above (see claim 14). Blatter et al further discloses a command indicating a type of encryption (see for example; col 5 ln 35-54). Johnston-Blatter does not explicitly teach wherein said type is between even and odd encryption. Eyer et al discloses processing digital data (see for example; fig 1) comprising of switching between even and odd encryption (see for example col 8 ln 12-29). Eyer et al discloses the even/odd encryption type as a means of changing encryption keys (see for example, col 7 ln 46-58). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to employ the teachings of Eyer within Johnston-Blatter because it would have provided an organized method of controlling encryption keys while maintaining the security of changing encryption keys.

15. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston US Patent 6,373,946 B1 in view of Eyer et al, US Patent 5,485,577.

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16. As per claim 16, Johnston discloses the claimed limitations described above (see claim 11). Johnston does not explicitly teach, wherein said encryption key is switched between even and odd. Eyer et al discloses processing digital data (see for example; fig 1) comprising of switching between even and odd encryption (see for example col 8' ln 12-29). Eyer et al discloses the even/odd encryption type as a means of changing encryption keys (see for example, col 7 ln 46-58). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teachings of Eyer within Johnston because it would have provided an organized method of controlling encryption keys while maintaining the security of changing encryption keys.

Response to Arguments

17. Applicant's arguments filed on April 04, 2005 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

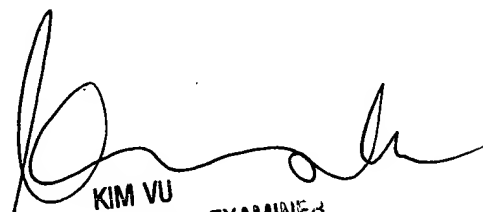
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beemnet W. Dada whose telephone number is (571) 272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beemnet Dada

June 26, 2005


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100